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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,963	01/26/2004	Shpak Eran	91366	9322

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EXAMINER	
BRANDT, CHRISTOPHER M	
ART UNIT	**PAPER NUMBER**
2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/764,963	ERAN, SHPAK	
	Examiner	Art Unit	
	Christopher M. Brandt	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements submitted on 6/21/2004, 3/25/2005, 5/5/2005, 8/25/2005, 12/8/2005, 6/7/2006, 8/25/2006, and 12/4/2006 have been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-54 are rejected under 35 USC 103(a) as being unpatentable over **BAJIC (US PGPUB 2003/0227893 A1)** in view of **Melpignano et al. (US PGPUB 2003/0003912 A1, hereinafter Melpignano)**.

Consider **claim 1**. Bajic discloses an apparatus for mobile communication, comprising: a switch, having a plurality of ports for connection to a wired local area network (LAN) (paragraph 52, read as all packets receive4d from mobile stations by a repeater without errors are forwarded to switch 301. Switch 301 knows which repeater sent the packet(s) because it is received on its preassigned port);

a plurality of repeaters, which are arranged in a wireless local area network (WLAN) to communicate over the air on a common frequency channel with a mobile station using a common basic service set identification (BSSID) for all the repeaters (paragraphs 45, 46, 121, read as each of the repeaters receives wireless communications from device (e.g. mobile stations) in the coverage areas of the repeaters. Although only three repeaters are shown, alternative embodiments may utilize any number of repeaters). Receive unit filters valid received frames by destination address, and BssId for group destination addresses), and which are coupled by the LAN to the switch so that upon receiving at one or more of the repeaters an uplink signal transmitted over the WLAN by the mobile station on the common frequency channel (LAN backbone 102 also includes switch 301 which interfaces to repeaters 301_1-302_3), the one or more of the repeaters convey messages responsively to the uplink signal over the LAN to the switch (paragraph 52, read as each packet may be received by one or more repeaters. Each repeater that receives a packet from a mobile station without errors determines the received signal strength of

the packet. The repeater encapsulates the packet into an Ethernet packet with the RSSI in a header and forwards the Ethernet packet to switch 301); and

a manager node, which is coupled to the switch so as to receive the messages and is adapted to process the messages so as to select one of the repeaters to respond to the uplink signal, and to send an instruction via the switch to the selected one of the repeaters to transmit a response to the mobile station (paragraph 90, read as switch 301 may switch the packet to port 5, the port that associated with the communication path through repeater 302_O. Thus, mobility is supported by simply moving a packet to a different port of switch 301 that is assigned to a different repeater).

Bajic discloses the claimed invention except he fails to explicitly teach access points (Bajic teaches repeaters).

However, Melpignano discloses access points (paragraphs 59, 94-98, 111-115, 123, 126, 137, read as a wireless communications system is in the form of shard resource network 10, in this case a Bluetooth local area network (BT LAN), and comprises a slave unit in the form of a mobile terminal MT and set of master units in the form of wireless access points AP_{1-4} connected together via the shared resource network 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Melpignano into the apparatus of Bajic in order to that signaling between the mobile terminal MT and the access points need not be the same as the manner in which the access points communicate with each other through the shared access network (paragraph 78).

Consider **claim 19**. Bajic discloses an apparatus for mobile communication, comprising:

a switch, having a plurality of ports for connection to a wired local area network (LAN) (paragraph 52, read as all packets receive4d from mobile stations by a repeater without errors are forwarded to switch 301. Switch 301 knows which repeater sent the packet(s) because it is received on its preassigned port);

a plurality of repeaters, which are arranged in a wireless local area network (WLAN) to communicate over the air with a mobile station, and which are coupled by the LAN to the switch so that upon receiving at one or more of the repeaters an uplink message transmitted over the WLAN by the mobile station (paragraphs 45, 46, 121, read as each of the repeaters receives wireless communications from device (e.g. mobile stations) in the coverage areas of the repeaters. Although only three repeaters are shown, alternative embodiments may utilize any number of repeaters). Receive unit filters valid received frames by destination address, and BssId for group destination addresses), the one or more of the repeaters convey the uplink message over the LAN to the switch (paragraph 52, read as each packet may be received by one or more repeaters. Each repeater that receives a packet from a mobile station without errors determines the received signal strength of the packet. The repeater encapsulates the packet into an Ethernet packet with the RSSI in a header and forwards the Ethernet packet to switch 301); and

a manager node, which is connected to first and second ports among the plurality of the ports of the switch, and is configured to receive the uplink message from the repeaters through the first port and to convey the uplink message via the second port over the LAN to a destination

address of the message (paragraph 90, read as switch 301 may switch the packet to port 5, the port that associated with the communication path through repeater 302_O. Thus, mobility is supported by simply moving a packet to a different port of switch 301 that is assigned to a different repeater).

Bajic discloses the claimed invention except he fails to explicitly teach access points (Bajic teaches repeaters).

However, Melpignano discloses access points (paragraphs 59, 94-98, 111-115, 123, 126, 137, read as a wireless communications system is in the form of shard resource network 10, in this case a Bluetooth local area network (BT LAN), and comprises a slave unit in the form of a mobile terminal MT and set of master units in the form of wireless access points AP_{1-4} connected together via the shared resource network 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Melpignano into the apparatus of Bajic in order to that signaling between the mobile terminal MT and the access points need not be the same as the manner in which the access points communicate with each other through the shared access network (paragraph 78).

Consider **claim 28**. Bajic discloses a method for mobile communication, comprising:

arranging a plurality of repeaters in a wireless local area network (WLAN) to communicate over the air with a mobile station using a common basic service set identification (BSSID) for all the repeaters (paragraphs 45, 46, 121, read as each of the repeaters receives wireless communications from device (e.g. mobile stations) in the coverage areas of the

repeaters. Although only three repeaters are shown, alternative embodiments may utilize any number of repeaters). Receive unit filters valid received frames by destination address, and BssId for group destination addresses);

receiving at one or more of the repeaters an uplink signal transmitted over the WLAN by the mobile station using the common BSSID (paragraphs 45, 52, read as LAN backbone 102 also includes switch 301 which interfaces to repeaters 301_1-302_3. Each packet may be received by one or more repeaters. Each repeater that receives a packet from a mobile station without errors determines the received signal strength of the packet. The repeater encapsulates the packet into an Ethernet packet with the RSSI in a header and forwards the Ethernet packet to switch 301);

conveying messages responsively to the uplink signal from the one or more of the repeaters over a wired local area network (LAN) linking the repeaters to a manager node; processing the messages at the manager node so as to select one of the repeaters to respond to the uplink signal, and conveying a response instruction from the manager node to the selected one of the repeaters; and transmitting a response from the selected one of the repeaters to the mobile station responsively to the response instruction (paragraph 90, read as switch 301 may switch the packet to port 5, the port that associated with the communication path through repeater 302_O. Thus, mobility is supported by simply moving a packet to a different port of switch 301 that is assigned to a different repeater).

Bajic discloses the claimed invention except he fails to explicitly teach access points (Bajic teaches repeaters).

However, Melpignano discloses access points (paragraphs 59, 94-98, 111-115, 123, 126, 137, read as a wireless communications system is in the form of shard resource network 10, in this case a Bluetooth local area network (BT LAN), and comprises a slave unit in the form of a mobile terminal MT and set of master units in the form of wireless access points AP_{1-4} connected together via the shared resource network 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Melpignano into the apparatus of Bajic in order to that signaling between the mobile terminal MT and the access points need not be the same as the manner in which the access points communicate with each other through the shared access network (paragraph 78).

Consider **claim 46**. X discloses a method for mobile communication, comprising:

coupling a manager node to first and second ports among a plurality of ports of a switch in a wired local area network (LAN) (paragraph 45, 90, read as LAN backbone 102 also includes switch 301 which interfaces with repeaters. Although, only three repeaters are shown, alternative embodiments may utilize any number of repeaters. Switch 301 may switch the packet to port 5, the port that associated with the communication path through repeater 302_O. Thus, mobility is supported by simply moving a packet to a different port of switch 301 that is assigned to a different repeater);

arranging a plurality of repeaters in a wireless local area network (WLAN) to communicate over the air with a mobile station points; receiving at one or more of the repeaters an uplink message transmitted over the WLAN by the mobile station, the uplink message

containing a destination address; (paragraphs 45, 46, 121, read as each of the repeaters receives wireless communications from device (e.g. mobile stations) in the coverage areas of the repeaters. Although only three repeaters are shown, alternative embodiments may utilize any number of repeaters). Receive unit filters valid received frames by destination address, and BssId for group destination addresses);

passing the uplink message from the one or more of the repeaters over the LAN to the manager node via the first port of the switch; and conveying the uplink message from the manager node via the second port over the LAN to the destination address (paragraph 90, read as switch 301 may switch the packet to port 5, the port that associated with the communication path through repeater 302_O. Thus, mobility is supported by simply moving a packet to a different port of switch 301 that is assigned to a different repeater. Receive unit filters valid received frames by destination address, and BssId for group destination addresses).

Bajic discloses the claimed invention except he fails to explicitly teach access points (Bajic teaches repeaters).

However, Melpignano discloses access points (paragraphs 59, 94-98, 111-115, 123, 126, 137, read as a wireless communications system is in the form of shard resource network 10, in this case a Bluetooth local area network (BT LAN), and comprises a slave unit in the form of a mobile terminal MT and set of master units in the form of wireless access points AP_{1-4} connected together via the shared resource network 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Melpignano into the apparatus of Bajic

in order to that signaling between the mobile terminal MT and the access points need not be the same as the manner in which the access points communicate with each other through the shared access network (paragraph 78).

Consider **claim 2 and as applied to claim 1**. Bajic and Melpignano disclose wherein the access points have respective service areas, and are arranged so that the service areas substantially overlap (paragraph 50).

Consider **claim 3 and as applied to claim 1**. Bajic and Melpignano disclose wherein the access points are configured to communicate with the mobile station substantially in accordance with IEEE Standard 802.11 (paragraph 46).

Consider **claim 4 and as applied to claim 1**. Bajic and Melpignano disclose wherein the LAN is an Ethernet LAN (paragraph 48).

Consider **claim 5 and as applied to claim 1**. Bajic and Melpignano disclose wherein the LAN is characterized by a data transmission rate of at least 1 Gbps (paragraph 66).

Consider **claim 6 and as applied to claim 1**. Bajic and Melpignano disclose wherein the LAN is characterized by a data transmission rate that is substantially less than 1 Gbps (paragraph 66).

Consider **claim 7 and as applied to claim 1**. Bajic and Melpignano disclose wherein the manager node has an address on the LAN, and wherein the access points are adapted to convey

the messages over the LAN in the form of data frames directed to the address of the manager node (paragraph 52).

Consider **claim 8 and as applied to claim 7**. Bajic and Melpignano disclose wherein the access points are configured to communicate over the LAN exclusively with the manager node (paragraph 56).

Consider **claim 9 and as applied to claim 7**. Bajic and Melpignano disclose wherein the access points are adapted to receive an uplink data packet sent by the mobile station using the uplink signal, and to fragment the uplink data packet among a succession of the data frames for conveyance over the LAN via the switch to the manager node (paragraph 116).

Consider **claim 10 and as applied to claim 9**. Bajic and Melpignano disclose wherein the access points are operative to fragment the uplink data packet so that the data frames have a length that is no more than 10% of a maximum frame length permitted on the LAN (paragraph 126).

Consider **claim 11 and as applied to claim 9**. Bajic and Melpignano disclose wherein the access points are operative to fragment the uplink data packet so that the data frames have a length that is equal to a minimum frame length permitted on the LAN (paragraph 116, 117).

Consider **claim 12 and as applied to claim 9**. Bajic discloses wherein the uplink data packet comprises a destination address, and wherein the manager node is adapted to reassemble the uplink data packet from the succession of the data frames, and to convey the reassembled packet via the switch over the LAN to the destination address (paragraphs 90, 116, 117).

Consider **claim 13 and as applied to claim 12**. The combination of Bajic and Melpignano disclose wherein the manager node is connected to first and second ports among the plurality of the ports of the switch, and is configured to receive the data frames from the access points through the first port and to convey the reassembled packet to the LAN via the second port.

Consider **claim 14 and as applied to claim 13**. Bajic discloses wherein the manager node is further configured to receive a downlink data packet from the LAN via the second port, and to fragment the downlink data packet into a further succession of the data frames and to convey the further succession of the data frames via the first port to the selected one of the access points, which is operative to reassemble the downlink data packet for transmission over the WLAN to the mobile station (paragraph 116).

Consider **claim 15 and as applied to claim 9**. Bajic and Melpignano disclose wherein the address of the manager node on the LAN comprises a Layer 3 address, and wherein each of the succession of the data frames among which the uplink data packet is fragmented comprises a Layer 3 encapsulating packet, having a destination address corresponding to the Layer 3 address of the manager node (Bajic; paragraph 95, Melpignano; paragraph 114).

Consider **claim 16 and as applied to claim 1**. Bajic and Melpignano disclose wherein the messages conveyed by the access points responsively to the uplink signal comprise an indication of a strength of the uplink signal received respectively by each of the one or more of the access points, and wherein the manager node is adapted to select, responsively to the indication and prior to receiving the messages from all of the one or more of the access points,

the one of the access points to respond to the uplink signal (Bajic; paragraphs 60, 61, Melpignano; paragraph 97).

Consider **claim 17 and as applied to claim 16**. The combination of Bajic and Melpignano disclose wherein the access points are adapted to set, responsively to the strength of the uplink signal, a priority indicator in the messages to be conveyed over the LAN so as to cause the switch to deliver a first message indicating a strong uplink signal before delivering a second message indicating a weak uplink signal.

Consider **claim 18 and as applied to claim 16**. Melpignano discloses wherein the access points are adapted, responsively to the strength of the uplink signal, to delay transmission of some of the messages over the LAN, so that a first message indicating a strong uplink signal is transmitted with a smaller delay than a second message indicating a weak uplink signal (paragraph 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Melpignano into the apparatus of Bajic in order to help it establish communications with base stations it has not yet encountered (paragraph 9).

Consider **claim 20 and as applied to claim 19**. Bajic and Melpignano disclose wherein the access points are configured to communicate over the LAN exclusively with the manager node via the first port in response to uplink messages received from the mobile station (paragraph 56).

Consider **claim 21 and as applied to claim 19**. Bajic and Melpignano disclose wherein the access points are configured to communicate with the mobile station substantially in accordance with IEEE Standard 802.11 (paragraph 46).

Consider **claim 22 and as applied to claim 19**. The combination of Bajic and Melpignano disclose wherein the manager node has first and second addresses on the LAN, which are respectively associated with the first and second ports, and wherein the access points are adapted to convey the uplink message over the LAN in the form of data frames directed to the first address.

Consider **claim 23 and as applied to claim 22**. Melpignano discloses wherein the uplink message comprises a data packet, and wherein the access points are adapted to fragment the uplink data packet among a succession of the data frames for conveyance over the LAN to the first address, and wherein the manager node is adapted to reassemble the data packet from the succession of the data frames, and to convey the reassembled data packet via the second port over the LAN to the destination address, using the second address as a source address (paragraph 126).

Consider **claim 24 and as applied to claim 23**. Bajic and Melpignano disclose discloses wherein the access points are operative to fragment the data packet so that the data frames have a length that is no more than 10% of a maximum frame length permitted on the LAN (paragraph 126).

Consider **claim 25 and as applied to claim 23**. Bajic and Melpignano disclose wherein the access points are operative to fragment the data packet so that the data frames have a length that is equal to a minimum frame length permitted on the LAN (paragraphs 116, 117).

Consider **claim 26 and as applied to claim 23**. Bajic and Melpignano disclose wherein the address of the manager node on the LAN comprises a Layer 3 address, and wherein each of the succession of the data frames among which the uplink data packet is fragmented comprises a Layer 3 encapsulating packet, which is addressed to the Layer 3 address of the manager node (Bajic; paragraph 95, Melpignano; paragraph 114).

Consider **claim 27 and as applied to claim 19**. The combination of Bajic and Melpignano disclose wherein the manager node is further configured to receive a downlink message from the LAN via the second port, and to convey the downlink message via the first port to one of the access points, which is operative to transmit the downlink message over the WLAN to the mobile station.

Consider **claim 29 and as applied to claim 28**. Bajic and Melpignano disclose wherein the access points have respective service areas, and wherein arranging the plurality of the access points comprises arranging the access points so that the service areas substantially overlap (paragraph 52).

Consider **claim 30 and as applied to claim 28**. Bajic and Melpignano disclose wherein arranging the plurality of the access points comprises arranging the access points to communicate with the mobile station substantially in accordance with IEEE Standard 802.11 (paragraph 46).

Consider **claim 31 and as applied to claim 28**. Bajic discloses wherein the LAN is an Ethernet LAN (paragraph 48).

Consider **claim 32 and as applied to claim 31**. Bajic discloses wherein conveying the messages comprises sending the messages over the Ethernet LAN at a data transmission rate of at least 1 Gbps (paragraph 66).

Consider **claim 33 and as applied to claim 31**. Bajic discloses wherein conveying the messages comprises sending the messages over the Ethernet LAN at a data transmission rate that is substantially less than 1 Gbps (paragraph 66).

Consider **claim 34 and as applied to claim 28**. Bajic and Melpignano disclose wherein the manager node has an address on the LAN, and wherein conveying the messages comprises transmitting the messages over the LAN in the form of data frames directed to the address of the manager node (paragraph 52).

Consider **claim 35 and as applied to claim 34**. Bajic and Melpignano disclose wherein the access points are configured to communicate over the LAN exclusively with the manager node (paragraph 56).

Consider **claim 36 and as applied to claim 34**. Bajic and Melpignano disclose wherein receiving the uplink signal comprises receiving an uplink data packet sent by the mobile station, and wherein transmitting the messages comprises fragmenting the uplink data packet among a succession of the data frames for conveyance over the LAN via the switch to the manager node (paragraph 116).

Consider **claim 37 and as applied to claim 36**. Bajic discloses wherein fragmenting the uplink data packet comprises generating the data frames with a length that is no more than 10% of a maximum frame length permitted on the LAN (paragraph 126)

Consider **claim 38 and as applied to claim 36**. Bajic and Melpignano disclose wherein fragmenting the uplink data packet comprises generating the data frames with a length that is equal to a minimum frame length permitted on the LAN (paragraphs 116, 117).

Consider **claim 39 and as applied to claim 36**. Bajic discloses wherein the uplink data packet comprises a destination address, and comprising reassembling the uplink data packet at the manager node from the succession of the data frames, and conveying the reassembled packet over the LAN to the destination address (paragraphs 90, 116, 117).

Consider **claim 40 and as applied to claim 39**. The combination of Bajic and Melpignano disclose wherein the LAN comprises a switch, and the manager node is connected to first and second ports of the switch, and wherein transmitting the messages comprises transmitting the data frames from the access points through the first port to the manager node, and wherein conveying the reassembled packet comprises transmitting the reassembled packet to the LAN via the second port.

Consider **claim 41 and as applied to claim 40**. Bajic discloses and comprising: receiving at the manager node a downlink data packet from the LAN via the second port; fragmenting the downlink data packet into a further succession of the data frames; conveying the further succession of the data frames via the first port to the selected one of the access points;

and reassembling the downlink data packet at the selected one of the access points for transmission over the WLAN to the mobile station (paragraph 116).

Consider **claim 42 and as applied to claim 36**. Bajic and Melpignano disclose wherein the address of the manager node on the LAN comprises a Layer 3 address, and wherein each of the succession of the data frames among which the uplink data packet is fragmented comprises a Layer 3 encapsulating packet, having a destination address corresponding to the Layer 3 address of the manager node (Bajic; paragraph 95; Melpignano; paragraph 114).

Consider **claim 43 and as applied to claim 28**. Bajic and Melpignano disclose wherein conveying the messages comprises conveying an indication of a strength of the uplink signal received respectively by each of the one or more of the access points, and wherein processing the messages comprises selecting at the manager node, responsively to the indication and prior to receiving the messages from all of the one or more of the access points, the one of the access points to respond to the uplink signal (Bajic; paragraphs 60, 61, Melpignano; paragraph 97).

Consider **claim 44 and as applied to claim 43**. The combination of Bajic and Melpignano disclose wherein conveying the indication comprises setting, responsively to the strength of the uplink signal, a priority indicator in the messages to be conveyed over the LAN so as to cause the switch to deliver a first message indicating a strong uplink signal before delivering a second message indicating a weak uplink signal.

Consider **claim 45 and as applied to claim 43**. Melpignano discloses wherein conveying the indication comprises delaying, responsively to the strength of the uplink signal, transmission of some of the messages, so that a first message indicating a strong uplink signal is

transmitted with a smaller delay than a second message indicating a weak uplink signal (paragraph 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Melpignano into the apparatus of Bajic in order to help it establish communications with base stations it has not yet encountered (paragraph 9).

Consider **claim 47 and as applied to claim 46**. Bajic and Melpignano discloses wherein arranging the plurality of the access points comprises configuring the access points to communicate over the LAN exclusively with the manager node via the first port in response to uplink messages received from the mobile station (paragraph 56).

Consider **claim 48 and as applied to claim 46**. Bajic and Melpignano disclose wherein arranging the plurality of the access points comprises arranging the access points to communicate with the mobile station substantially in accordance with IEEE Standard 802.11 (paragraph 46).

Consider **claim 49 and as applied to claim 46**. The combination of Bajic and Melpignano disclose wherein coupling the manager node comprises assigning to the manager node first and second addresses on the LAN, which are respectively associated with the first and second ports, and wherein passing the uplink message comprises sending the uplink message over the LAN in the form of one or more data frames directed to the first address.

Consider **claim 50 and as applied to claim 49**. Bajic and Melpignano discloses wherein the uplink message comprises an uplink data packet, and wherein passing the uplink message

comprises fragmenting the upstream data packet among a succession of the data frames for conveyance over the LAN to the MAC address, and wherein conveying the uplink message comprises reassembling the data packet from the succession of the data frames, and conveying the reassembled packet via the second port over the LAN to the destination address, using the second address as a source address (paragraph 126).

Consider **claim 51 and as applied to claim 50**. Bajic discloses wherein fragmenting the uplink data packet comprises generating the data frames with a length that is no more than 10% of a maximum frame length permitted on the LAN (paragraph 126).

Consider **claim 52 and as applied to claim 50**. Bajic discloses wherein fragmenting the uplink data packet comprises generating the data frames with a length that is equal to a minimum frame length permitted on the LAN (paragraphs 116, 117).

Consider **claim 53 and as applied to claim 50**. X discloses wherein the address of the manager node on the LAN comprises a Layer 3 address, and wherein each of the succession of the data frames among which the uplink data packet is fragmented comprises a Layer 3 encapsulating packet, which is addressed to the Layer 3 address of the manager node (Bajic; paragraph 95, Melpignano; paragraph 114).

Consider **claim 54 and as applied to claim 46**. The combination of Bajic and Melpignano disclose and comprising: receiving at the manager node a downlink message from the LAN via the second port; conveying the downlink message via the first port from the manager node to one of the access points; and transmitting the downlink message over the WLAN from the one of the access points to the mobile station.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Brandt whose telephone number is (571) 270-1098. The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

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February 16, 2007

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